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19 January 2015

Mr John Pierce
Chairman
Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235

Dear Mr Pierce

AGL Energy Limited ('the Proponent') submits this rule change request to the Australian Energy Market Commission, in line with the requirements of 92(1)(a) of the new *National Electricity Law* and associated regulations and the requirements of clause 298, Part 3, Chapter 9 of the *National Gas Law* and associated regulations.

The rule change request relates to Division 3 in Chapter 6B of the *National Electricity Rules* and Division 4 in Part 21 of the *National Gas Rules*, being the sections relating to the Retailer – Distributor Credit Support Regimes.

This rule change has been developed with expert input on alignment of credit risk under the current rules, taking into account the principles of the National Electricity and Gas Objectives.

The rule change proposal and associated description of the proposed rule are attached for your consideration.

Should you have any questions in relation to this rule change request please contact David Markham, Senior Regulatory Advisor on (03) 8633 6510.

Yours sincerely

Rebecca Brigham
Manager Retail Markets Regulation

Re-calibrating risk under the Retailer-Distributor Credit Support Provisions

Rule change request

9 January 2015

AGL

1. Name and address of rule change request proponent

AGL
Level 22
120 Spencer Street
Melbourne VIC 3000

2. Description of the proposed rule change

This rule change request seeks to correct errors in the Retailer-Distributor credit support regimes in the National Electricity Rules[1] and the National Gas Rules[2] ('the Rules'). The current Retailer-Distributor credit support regime provides credit support in a manner that does not efficiently reflect the risk of retailer default.

Two distinct problems are addressed herein. Firstly, the rules as initially proposed included a term that was arbitrarily selected to reflect an appropriate level of loss for an average network ('maximum credit allowance' or MCA). This figure was not based on any sound assessment of the losses a network would face, or could realistically withstand, in the event of retailer default. Yet it was used as a primary input to calibrate the provision of credit support. The suitability of the MCA was not established and as a result the scheme as first proposed lacked a foundational and logical premise.

Secondly, under changes made to the rules in the final stages of their drafting a further distortion was introduced, by moving the MCA from 33.33 percent to 25 percent. The objective of this change was to increase the overall quantum of credit support to be provided, but without changing the quantum of credit support required of a retailer rated B. Firstly, this was erroneous because it sought to replicate an outcome for B rated retailers for which the logic had not been established, and it sought to replicate it for B retailers only. Secondly, the change led to inefficient levels of credit support required primarily from retailers least likely to default, meaning the overall quantum of credit support being provided is too high; and much of it could not be called upon in the event of a riskier retailer defaulting.

The initial MCA and the subsequent change to this parameter were not logically conceived and the result is a system that fails to align risk and guarantees. This failure should be addressed so that credit support reflects the risk of default, based on independent assessment of the retailers' risk of default, their value at risk (VaR).

The proposed rule change would correct the alignment of risks with guarantees and update the scheme to reflect current expert risk weightings, removing the MCA component, and relating credit requirements directly to retailers' VaR and their credit ratings.

[1] Division 3 in Chapter 6B of the *National Electricity Rules*
[2] Division 4 in Part 21 of the *National Gas Rules*

3. Nature and scope of the issue addressed

The purpose of credit support schemes is to reduce the risk of customers being exposed to the cost of a defaulting retailer not paying its network bills.

In the event a retailer fails it is likely to have credit outstanding to one or more distribution network service providers (DNSPs). In the absence of a credit support scheme the DNSPs must recover this lost revenue from all network customers through a pass through event, via an adjustment to its tariffs at the next opportunity, typically via an intra-period change to tariffs. As regulated monopoly businesses DNSPs are unable to refuse service to an (appropriately accredited) retailer simply on the grounds of its credit rating, this potentially leaves DNSPs exposed to the loss of network revenue for the period from first default until the customers are transferred to one or several retailers of last resort.

In the absence of a credit support scheme the DNSP would carry the cash shortfall until such time as it could recover this payment via an approved pass through event. The amount a DNSP could recover from customers under the pass through would typically include recognition of timing differences and hence the primary impact for the DNSP would be one of cash flow rather than revenue or return. Ultimately, all customers of the DNSP would bear the cost, whereas the original network services were provided only to customers of the defaulting retailer. As well as being somewhat inequitable, this arrangement could reduce the incentive for a retailer to manage its obligations to DNSPs in an on-going fashion, since the costs of its default are effectively subsidised across all customers.

Distributor-retailer credit support schemes have typically required retailers to provide bank guarantees to networks that can be called upon in the event the retailer fails to pay, thereby directing the cost of the lost revenue to the entity causing the loss. The on-going cost of a retailer providing this guarantee is borne by the customers of the retailer, but the credit itself is only called on in the event of default. The requirement to maintain a guarantee also has the effect of reducing the retail entity's borrowed funds at call, constraining its opportunity to reinvest in its business.

The original drafters of the current scheme had as a goal to minimise the cost of the scheme while also reducing customers' exposure to default to an acceptable level. This involved an estimate of a threshold of acceptable risk customers would be happy to bear, above which credit support would need to be provided. In draft versions of the rules a one-year default probability of 0.12 percent was determined as the maximum level of risk customers would be willing to bear; being a 99.88 percent probably that the retailer would not default.

It was further deemed that this value at the risk level of 0.12 percent should relate to only a third of a network's annual bill at a maximum (a 'credit allowance' of 33.33 percent), with a view to ensuring that the effective loss for an average network (the value at risk multiplied by the risk of default) was an acceptable level when spread over an average network's customer base. The choice of 33.33 percent as the maximum credit allowance was based on the risk-weighted loss a notional average network rated A- would have, being $95,600. This amount was deemed to be immaterial when spread over the customers of an average network.

Prior to finalisation of the scheme several changes were made to the provisions. These were to:

- Correct an error that had misstated the probability of default for certain retailers;
- Update the risk data from 2006 to 2010;
- Decrease the credit allowance from 33.33 percent to 25 percent.

The first two changes updated the scheme relative to external inputs – a fall in Standard and Poor's (S&P) default rates and an error in the calculation of default probabilities. The impact of these changes was that less credit support would be required overall, largely reflecting a fall in riskiness of corporate borrowers.

In contrast, the third change was a decision on behalf of policy makers to increase the overall amount of credit support to be provided considerably, and to draw this increased credit support from retailers rated BBB- to BBB+ by S&P. The justifications for this were:

- The sub-prime banking crisis in the United States and Europe had increased risk in Australia and this needed to be accounted for, independently of the risk weightings already reflected in the S&P and Dun and Bradstreet (D&B) ratings;
- The National Electricity Market (NEM) was experiencing an above average incidence of peak price events and this increased the risk a retailer would default;
- If the increased amount of credit support was drawn from the lowest rated retailers this would discourage market entry from smaller low rated retailers since providing credit support could be more costly for them, discouraging competition.

There are a number of problems with relying on these assumptions as the basis for the revised scheme, as outlined below.

1. *The 'maximum credit allowance' is arbitrary*

The decision to set a 'maximum credit allowance' as a proportion of a network's total revenue was never adequately established; nor were the decisions to set this figure at 33.33 percent or 25 percent.

The notion of an MCA was adapted from the Victorian scheme.[3] Under that scheme the MCA was defined as the maximum credit an A- rated retailer could have outstanding as a proportion of a network's total revenue, before being required to pay credit support. The level of the MCA was set at 33.33 percent to ensure the effective risk-weighted loss of an average (notional) network could sustain from a an A- rated retailer was capped at a level ($95,600) that represented a negligible loss when spread over that average network's customer base and relative to the notional network's annual revenue of $79.7 million.

The decision to set an MCA relative to a network's *total revenue* was not well founded. It is a retailer's value at risk (VaR) that is the relevant benchmark in terms of the losses to a network from that retailer defaulting, not the network's total revenue. Furthermore, no evidence was provided as to why a higher MCA, which would still represent a negligible impost when spread across the customers of a notional network, would be unacceptable while a $95,600 was considered reasonable.

The fact that the basis for setting the MCA was not adequately established raises a number of consequential concerns:

- Matching all customers to the effective loss of an A- retailer with 33.33 percent of an average network's revenue was a goal unrelated to any sound assessment of risk;

[3] See SFG/Frontier report for full review

- The subsequent attempt to move the MCA from 33.33 percent to 25 percent, to increase overall credit support to be required while maintaining an equivalent outcome for a B rated retailer before and after the change, also lacks a logical basis since the outcome for a B rated retailer under an MCA of 33.33 had no sound basis.

2. *Credit ratings already incorporate efficient and dynamic measures of risk*

The S&P and D&B rankings incorporate granular measures of the creditworthiness of each company in the scheme, taking into account factors such as fluctuations in global capital markets and changes in NEM dynamics. As a result, the change in the MCA from 33.33 to 25 percent, to increase the overall quantum of credit support provided, was erroneous and unnecessary.

Companies and markets are dynamic and S&P and Dun and Bradstreet constantly update company ratings, so a one-off measure to increase overall credit support in response to contemporary events would always be rapidly out of date. This has proven true, as volatility in global capital markets has receded (noting the impact on corporate credit risk in Australia was short-lived in any event) and the incidence of high price events in the NEM have declined dramatically due to changes in the supply-demand balance.

The outcome is that customers are currently paying too much for credit support relative to the most reliable measures of corporate credit risk.

3. *Credit support is an ineffective means to encourage competition*

One putative goal in relating credit support to the network's overall revenue, via the MCA, was to create an incentive for retailers not to concentrate their customer base in one place and thereby to encourage greater competition. Policy makers also alluded to this when justifying the change from 33.33 percent to 25 percent,[4] encouraging smaller retailers to enter markets, or larger retailers to focus on markets where they have fewer customers.

The credit support regime is an ineffective means by which to encourage competition. More effective means exist, including a raft of measures either already in place, or under contemplation as part of price deregulation in NSW and Queensland. Key measures already in place include independent price comparators and public information campaigns. A variety of additional measures are also contemplated as part of the various rule changes flowing from the AEMC's Power of Choice review.

Large retailers are unlikely to be influenced in their customer acquisition strategy by credit support requirements, they are driven foremost by commercial concerns. Equally, the policy objective of encouraging competition from smaller retailers can be fulfilled better through other means, meaning the rationale for distorting the credit support scheme no longer applies and the focus of the credit support scheme can remain on managing the risk of retailer defaults efficiently.

Under current arrangements customers continue to pay above efficient levels, in support of a policy objective (increasing competition) that the scheme is poorly designed to achieve.

[4] MCE Ministerial Energy Bulletin, Ministerial Council on Energy, Standing Committee of Officials Bulletin No. 192.

4. *Larger retailers cannot cross-subsidise smaller retailers under the scheme*

Explicit in the decision to revise the credit allowance from 33.33 to 25 percent were assumptions that the quantum of credit support provided overall needed to increase and that this increase should come from larger retailers. From this it could be inferred that as the overall value of credit guarantees provided to a DNSP increases, the DNSP's risk profile improves. However, this is not in fact the case. Following a retailer default a DNSP can only call on credit support from the defaulting retailer, not from all retailers. This means that in the event one of the lower rated retailers in the market fails (these retailers being the most likely to default), credit support provided by the larger retailers does not provide any buffer to this.

SFG/Frontier demonstrate through examples that a DNSP's risk profile is not automatically improved as a result of a higher overall quantum of credit support; rather that this depends which retailers provide support and their individual credit-ratings.

If policy makers had wanted all users of the DNSP to share equally in the cost of retailer default then they should have elected not to institute a credit support scheme at all. In this case, when a DNSP passed through the cost of unrecovered revenue, a subsidy would operate from customers of all non-defaulting retailers to the customers of the defaulting retailer. This approach has the virtue of simplicity; but it is precisely this outcome that the credit support scheme was originally intended to avoid.

The notion that by designing the scheme so less risky retailers provide a larger quantum of credit support this will lower DNSPs' risk—while also spreading the burden across those best able to manage it—is not only incorrect in practice, but works against the primary purpose of the scheme as it was originally conceived. The levels of credit support should be based on a reasoned assessment of each retailer's individual risk profile and the risk each customer would be reasonably willing to accept; or otherwise the scheme should be discontinued and the costs of default socialised across the customer base. Under the current misaligned scheme neither policy goal is achieved, leaving funds tied up where they are least likely to be of use.

5. *The cost of the misalignment is material*

The cost of credit support consists of several factors:

- The direct cost of the facility, which varies from around 2 percent of the face value of the guarantee upwards, depending on the creditworthiness of the borrower;
- A facility commitment fee, which varies from around 1.5 percent of the face value of the guarantee upwards, depending on the creditworthiness of the borrower;
- An additional constraint on the credit limit of retailer with the lender providing the bank guarantee, which translates to a reduced flexibility in funds at call, proportionate to the size of the guarantee.

The third factor is an indirect opportunity cost rather than a direct cost, but is no less material. Its impact is to tie up capital, constraining a retailer's scope for re-investment in its business.

The cost relevant to this rule change is the cost of investment grade retailers providing credit support based on the invalid MCA calculated by PWC, relative to the cost of credit support provided under the appropriately calibrated scheme proposed by the rule change. There is some uncertainty as to the exact cost to each retailer since both of the credit support arrangements between DNSPs and retailers and the borrowing arrangements between retailers and lenders are typically confidential. However, the Proponent estimates the additional value of credit guarantees to be in the range of $250 to $450 million across both the NEM and the same jurisdictions in the gas market. This implies:

- Direct costs well in excess of $4 million per annum (given that some of the guarantees are provided by lower rated retailers);
- Facility commitment fees well in excess of $3.1 million per annum;
- A reduction in funds available for re-investment in the electricity and gas markets of between $250 and $450 million.

The range is reasonably wide in recognition that the largest retailers credit ratings could vary (noting this would still have only marginal impact on their risk of default).

Under current justifications, customers bear these additional costs in order to:

- encourage competition, although in a highly indirect and ineffective manner;
- insure distributors and customers against a risk , although the assessment of default risk is not calibrated with reliable risk metrics,
- compensate for the risk of a default of a smaller retailer that may find credit support expensive, even though the funds will not be available to DNSPs in the event such a small retailer defaults.

These additional costs represents a significant inefficiency in the market, in terms of productive, allocative and dynamic efficiency. This statement is supported by the findings in the attached Frontier/SFG report.

4. How the rule change will address the issue

The Proponent proposes that the AEMC make a rule that will:

- Base credit support on a percentage of the Value at Risk, i.e., a percentage of the network charges liability;[5]
- Determine the percentage of the VaR such that each retailer's effective loss matches that of a bare investment grade retailer.
- Allow for a network to call on a bank guarantee for the full NCL in the event that the retailer is consistently late in paying bills or AEMO makes a claim for credit support from the retailer.

BBB- is bare investment grade rating and as such it is the best guide we have to the level of risk average creditors are comfortable with, being an annual risk of default (based on the most recent default data[6]) of 0.32 percent per year. Customers accept levels of risk higher than this across far larger purchases than their annual energy spend. This approach minimises the cost of the scheme while keeping risks at acceptable levels. Figure 1 includes the proposed formula for calculating the requirement. A marked up version of Chapter 6B, Section B1 of the National Electricity Rules are included in Appendix I.

Figure 1. Proposed formula to calculate Credit Support Requirement (CSR)

$$NCL \times DF^{BBB} = [NCL - CSR] \times DF^{Retailer}$$

**If $DF^{Retailer} \leq DF^{BBB}$ then CSR = 0*

Where:
NCL = network charges liability, as calculated under the current rules
DF^{BBB} = the default risk of a bare investment grade retailer
CSR = Credit support requirement
$DF^{Retailer}$ = the default risk of the retailer

S&P's most recent default risk figures are outlined in Table 1, below, along with the percentage of NCL that must be provided by sub-investment grade retailers to match the default risk of an investment grade retailer.

Table 1. Default risk by credit rating and resulting credit support requirements

Rating	Default rate[7]	Credit support as percentage of NCL	Expected value
BBB+	0.14	0.00	99.86
BBB	0.20	0.00	99.80
BBB-	0.32	0.00	99.68
BB+	0.43	25.58	99.68
BB	0.68	52.94	99.68
BB-	1.13	71.68	99.68
B+	2.31	86.15	99.68
B	4.73	93.23	99.68
B-	7.92	95.96	99.68
CCC/C	26.87	98.81	99.68

Source: Calculations of the Propenent, S&P where indicated

[5] NCL as calculated under the current rules
[6] Standard and Poor's Rating Services, Default, Transition, and Recovery: 2013 Annual Global Corporate Default Study And Rating Transitions, March 2014, Table 26, p.28
[7] Op cit.

Table 2 includes a worked example that demonstrates how the credit support percentages outlined in Table 1 would ensure customers faced only an investment grade risk on the unsecured portion of outstanding amounts.

Table 2. Worked example for Risk-based approach

Assume a retailer rated BB+ has an NCL of $200

Investment grade effective default value for $200 = $200 x 0.32%	$0.64
Credit support as a percentage of NCL for BB+ retailer (Table 1)	25.58%
Credit support required = 25.58% x $200	$51.16
Unsecured amount = $200 - $51.16	$148.84
Effective default value on unsecured amount = $148.84 x 0.43	$0.64

The proponent acknowledges that one goal of the current (flawed) system was to minimise risk flowing from concentration, whereby a network was reliant on one retailer for a large share of its cash flow and hence could be left in difficult circumstances if that retailer were to fail. However, it is important to note that:

- the default of an investment grade retailer is not a likely outcome, rather it is subject to on-going and careful assessment of risk through the credit-rating process and remains at very low levels (below 0.5 of a percent), and
- existing levels of concentration will continue to fall as price deregulation is effected in NSW and Queensland, as has already occurred in Victoria.[8]

If we consider the example of a notional network with around $1,600 million total annual retail charges and around 1.4 million customers, and the largest retailer having around half the customers on the network. (This is equal or greater than the level of concentration on the NEM networks where full retail contestability has been introduced.) If the retailer was rated BBB- then its NCL would be around $170 million, and credit support owing of $80 million, which costs around $2.8 million in direct cost per annum. The customers of that retailer are paying around $4.00 per customer to ensure against the risk of default.

However, if the rule change proposal was enacted as proposed, the risk-adjusted expected default amount for each customer on the network with respect to the largest retailer is 39 cents (or [$170 million x 0.32%]/1.4 million). In this way, customers of the notional retailer face a very small effective loss in risk weighted terms of 39 cents under the rule change proposal, compared to a certain cost each year under the current scheme of $4.00. In the event this notional large retailer was to fail we calculate the actual cost to the network's customers would be less than $140 per customer[9] (even accounting for some extra cost for timing effects). It seems reasonable that customers would be comfortable avoiding $4.00 each year against a 99.68 percent chance of paying nothing and a 0.32 percent chance of paying $150. $150 is an impost equivalent to around 2-4 percent of the average retail bill depending on the jurisdiction and offer.

It is also worth noting that the level of retailer concentration in jurisdictions outside Victoria will continue to fall following the removal of price regulation, meaning that 39 cents is the

[8] AEMC, Review of Competition in the Retail Electricity and Natural Gas Markets in New South Wales, Final Report, p.27

[9] In the event this would be recovered on a $/MWh basis and so commercial and industrial customers would pay a larger share than consumer and small business customers, but we have not adjusted for this.

upper bound estimate of the risk-weighted annual loss. While the simultaneous default of two large investment grade retailers is not inconceivable, the chances are so slim as to be negligible in our view – and this scenario implies a level of industry restructure and change that the scheme cannot effectively contemplate. In any event, the risk-weighted expected default for two BBB- retailers with fifty percent of the customer base each would be no more than 79 cents in the example above, and the absolute loss per customer would be $300, or a ten percent impost on the average annual bill.

In terms of the networks managing the cash flow impacts for the period until the pass through is effective, they have a lower cost of capital than businesses subject to competition (albeit they currently benefit from regulated market risk premia that arguably imply a not insignificant downside risk to their revenues) and could easily fund any shortfall in cash by drawing on existing facilities – notwithstanding that this outcome is highly unlikely to ever occur.

In summary, under the rule change customers face a minimum probability of 99.68% that they will not be required to subsidise the cost of a retailer failure. In the unlikely event they are required to do so, the average cost to each customer on a network with a concentrated customer base will be less than $140 (and generally much lower than this). This figure can be expected to fall over time as competition increases in states early in the post-deregulation phase. Requiring customers to insure to a higher level than this via their retailer cannot be justified in the view of the Propenent. In addition, the current scheme does not provide a lower overall risk profile, since it provides for additional credit support where it is highly unlikely to be used.

5. How the proposed rule will address the National Electricity Objective and National Gas Objective

Electricity

The National Electricity Objective, as set out in the National Electricity Law, is to

> "*promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to -*
>
> *(a) price, quality, safety, reliability and security of supply of electricity; and*
>
> *(b) the reliability, safety and security of the national electricity system*"
>
> Source: National Electricity Law, Part 1, 7

The rule change proposal will:

- Promote efficient investment, in that it will free up capital that is currently inefficiently tied up serving poorly targeted policy objectives to be reinvested more productively, which is in the long term interest of customers;
- Better align retailers' contribution to credit support with their level of credit risk, encouraging them to make prudent decisions with respect to their payment practices and reducing risk overall, which will promote the reliability of the of supply, in line with the long term interests of customers;
- Reduce costs to retailers of providing retail services, which in a competitive energy market will result in lower prices (all else being equal), which is in the long term interests of customers.

Gas

The National Gas Objective, as set out in the National Gas Law, is to:

> *promote efficient investment in, and efficient operation and use of natural gas services for the long term interest of consumers of natural gas with respect to price, quality, safety, reliability and security of supply of natural gas.*
>
> Source: National Gas Law, Chapter 1, Part 3, Division 3, 23

The rule change proposal will:

- Promote efficient investment, in that will free up capital that is currently inefficiently tied up serving poorly targeted policy objectives to be reinvested more productively, which is in the long term interest of customers;
- Better align retailers' contribution to credit support with their level of credit risk, encouraging them to make prudent decisions with respect to their payment practices and reducing risk overall, which will promote the reliability of the of supply, in line with the long term interests of customers;

- Reduce costs to retailers of providing retail services, which in a competitive energy market will result in lower prices (all else being equal), which is in the long term interests of customers.

6. An explanation of the expected costs and benefits

Benefits

The benefits are estimated to be

- around $25 to $50 million per annum in reduced cost associated with credit guarantees
- releasing upwards of $350 million in capital for reinvestment in the electricity and gas sector.

Costs

Costs are not expected to be material.

There will be a small one-off cost involved in revising existing credit guarantees, which would be immaterial.

DNSPs might seek to revise their assessments of their credit risk exposure and recoup any marginal increase in risk flowing from a reduced overall quantity of credit guarantees through higher tariffs. However, this effect would be marginal. This is because the rule change would only be reducing credit support provided by retailers to efficient levels, not removing the requirement for retailers to provide credit support proportionate to the risk they pose. As demonstrated in the SFG/Frontier analysis, there is very little improvement in a DNSP's risk-weighted exposure when a retailer when an investment grade retailer provides credit support above efficient levels, because these funds are unavailable to the DNSP to manage the default of low-rated retailers. Equally, networks have far higher gearing than retailers, reflecting the lower levels of risk associated with their cash flows. This means that to the extent they were required to carry a temporary cash flow shortfall the impact could be expected to be lower than retailers' customers insuring for this via payments to the retailer.